

Interference search  
for 10/042,281 gvc

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	103	(semiconductor and die and heat and (conduit or via or channel or passage) and (material or metal or silver or copper) and heat).clm.	USPAT	OR	OFF	2005/09/06 17:26
L2	189	(semiconductor and die and heat and (conduit or via or channel or passage) and (material or metal or silver or copper) and heat).clm.	US-PGPUB; USPAT	OR	OFF	2005/09/06 17:26
L3	64	(semiconductor and die and heat and (conduit or via or channel or passage) and (material or metal or silver or copper) and heat and (localized or proximate or adjacent)).clm.	US-PGPUB; USPAT	OR	OFF	2005/09/06 17:26
L4	52	(semiconductor and die and heat and (conduit or via or channel) and (material or metal or silver or copper) and heat and (localized or proximate or adjacent)).clm.	US-PGPUB; USPAT	OR	OFF	2005/09/06 17:27
L5	14	(semiconductor and die and heat and (conduit or via or channel) and (material or metal or silver or copper) and heat and (localized or proximate or adjacent) and (dissipate or conduct or transfer)).clm.	US-PGPUB; USPAT	OR	OFF	2005/09/06 17:27

PLUS search  
done.  
LVC  
9/27/04

10042281\_CLSTITLES  
Titles of Most Frequently Occurring Classifications of Patents Returned  
From A Search of 10042281 on September 27, 2004

- 5 257/E23.004 (0 OR, 5 XR)  
Class 257 : ACTIVE SOLID-STATE DEVICES  
257/E23.001 PACKAGING, INTERCONNECTS, AND MARKINGS FOR  
SEMICONDUCTOR OR OTHER SOLID-STATE DEVICES (EPO)  
257/E23.003 .Mountings, e.g., nondetachable insulating  
substrates (EPO)  
257/E23.004 ..Characterized by shape (EPO)
- 5 257/E23.069 (0 OR, 5 XR)  
Class 257 : ACTIVE SOLID-STATE DEVICES  
257/E23.001 PACKAGING, INTERCONNECTS, AND MARKINGS FOR  
SEMICONDUCTOR OR OTHER SOLID-STATE DEVICES (EPO)  
257/E23.01 .Arrangements for conducting electric current  
to or from solid-state body in operation, e.g.,  
leads, terminal arrangements (EPO)  
257/E23.023 ..Consisting of soldered or bonded  
constructions (EPO)  
257/E23.06 ...Leads, i.e., metallizations or lead frames  
on insulating substrates, e.g., chip carriers (EPO)  
257/E23.068 ....Additional leads joined to metallizations  
on insulating substrate, e.g., pins, bumps, wires, flat  
leads (EPO)  
257/E23.069 .....Spherical bumps on substrate for external  
connection, e.g., ball grid arrays (BGA) (EPO)
- 4 257/E23.101 (0 OR, 4 XR)  
Class 257 : ACTIVE SOLID-STATE DEVICES  
257/E23.079 ..For integrated circuit devices, e.g., power  
bus, number of leads (EPO)  
257/E23.08 .Arrangements for cooling, heating, ventilating  
or temperature compensation; temperature-sensing  
arrangements (EPO)  
257/E23.101 ..selection of materials, or shaping, to  
facilitate cooling or heating, e.g., heat sinks (EPO)
- 3 257/714 (1 OR, 2 XR)  
Class 257 : ACTIVE SOLID-STATE DEVICES  
257/688 .with large area flexible electrodes in press  
contact with opposite sides of active semiconductor  
chip and surrounded by an insulating element, e.g., ring  
257/712 .with provision for cooling the housing or its  
contents  
257/714 ..Liquid coolant
- 3 257/737 (2 OR, 1 XR)  
Class 257 : ACTIVE SOLID-STATE DEVICES  
257/734 COMBINED WITH ELECTRICAL CONTACT OR LEAD  
257/737 .Bump leads
- 3 257/E21.508 (0 OR, 3 XR)  
Class 257 : ACTIVE SOLID-STATE DEVICES  
257/E21.001 PROCESSES OR APPARATUS ADAPTED FOR MANUFACTURE  
OR TREATMENT OF SEMICONDUCTOR OR SOLID-STATE  
DEVICES OR OF PARTS THEREOF (EPO)  
257/E21.002 .Manufacture or treatment of semiconductor  
device (EPO)

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- 257/E21.04 ..Device having at least one potential-jump  
depletion barrier or surface barrier, e.g., PN junction,  
layer, carrier concentration layer (EPO)
- 257/E21.499 ...Assembling semiconductor devices, e.g.,  
treatment packaging , including mounting, encapsulating, or  
of packaged semiconductor (EPO)
- 257/E21.506 ....Attaching or detaching leads or other  
or conductive members, to be used for carrying current to  
from device in operation (EPO)
- 257/E21.507 .....Formation of contacts to semiconductor by  
e.g., use of metal layers separated by insulating layers,  
(EPO) self-aligned contacts to source/drain or emitter/base
- 257/E21.508 .....Forming solder bumps (EPO)
- 3 257/E23.068 (0 OR, 3 XR)  
Class 257 : ACTIVE SOLID-STATE DEVICES  
257/E23.001 PACKAGING, INTERCONNECTS, AND MARKINGS FOR  
SEMICONDUCTOR OR OTHER SOLID-STATE DEVICES (EPO)
- 257/E23.01 .Arrangements for conducting electric current  
to or from solid-state body in operation, e.g., leads,  
terminal arrangements (EPO)
- 257/E23.023 ..Consisting of soldered or bonded  
constructions (EPO)
- 257/E23.06 ...Leads, i.e., metallizations or lead frames  
on insulating substrates, e.g., chip carriers (EPO)
- 257/E23.068 ....Additional leads joined to metallizations  
on insulating substrate, e.g., pins, bumps, wires, flat  
leads (EPO)
- 2 52/287.1 (0 OR, 2 XR)  
Class 052 : STATIC STRUCTURES  
52/287.1 CONDUIT, TRIM, OR SHIELD MEMBER AT CORNER
- 2 52/58 (1 OR, 1 XR)  
Class 052 : STATIC STRUCTURES  
52/58 EXTERIOR-TYPE FLASHING
- 2 52/631 (0 OR, 2 XR)  
Class 052 : STATIC STRUCTURES  
52/631 CORNER FORMED BY LAMINATE WITH BENT FACING  
SECTION
- 2 99/348 (2 OR, 0 XR)  
Class 099 : FOODS AND BEVERAGES: APPARATUS  
99/324 COOKING  
99/348 .With stirring
- 2 101/129 (0 OR, 2 XR)  
Class 101 : PRINTING  
101/114 STENCILING  
101/129 .Processes
- 2 126/672 (0 OR, 2 XR)  
Class 126 : STOVES AND FURNACES  
126/569 SOLAR HEAT COLLECTOR  
126/634 .With means to convey fluent medium through  
collector

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- 126/651 ..Conduit absorber structure  
126/672 ...Circular nonmetallic conduit
- 2 164/122 (0 OR, 2 XR)  
Class 164 : METAL FOUNDING  
164/1 PROCESS  
164/47 .Shaping liquid metal against a forming surface  
164/122 ..Controlling solidification (other than ambient cooling)
- 2 164/133 (0 OR, 2 XR)  
Class 164 : METAL FOUNDING  
164/1 PROCESS  
164/47 .Shaping liquid metal against a forming surface  
164/133 ..Introduction control or manipulation of charge
- 2 164/900 (0 OR, 2 XR)  
Class 164 : METAL FOUNDING  
164/900 RHEO-CASTING
- 2 165/46 (0 OR, 2 XR)  
Class 165 : HEAT EXCHANGE  
165/46 FLEXIBLE ENVELOPE OR COVER TYPE
- 2 174/260 (0 OR, 2 XR)  
Class 174 : ELECTRICITY: CONDUCTORS AND INSULATORS  
174/68.1 CONDUITS, CABLES OR CONDUCTORS  
174/250 .Preformed panel circuit arrangement (e.g., printed circuit)  
174/260 ..with electrical device
- 2 257/692 (0 OR, 2 XR)  
Class 257 : ACTIVE SOLID-STATE DEVICES  
257/688 .with large area flexible electrodes in press contact with opposite sides of active semiconductor chip  
and surrounded by an insulating element, e.g., ring  
257/690 .with contact or lead  
257/692 ..with particular lead geometry
- 2 257/712 (0 OR, 2 XR)  
Class 257 : ACTIVE SOLID-STATE DEVICES  
257/688 .with large area flexible electrodes in press contact with opposite sides of active semiconductor chip and surrounded by an insulating element, e.g., ring  
257/712 .with provision for cooling the housing or its contents
- 2 257/738 (0 OR, 2 XR)  
Class 257 : ACTIVE SOLID-STATE DEVICES  
257/734 COMBINED WITH ELECTRICAL CONTACT OR LEAD  
257/737 .Bump leads  
257/738 ..Ball shaped
- 2 257/774 (0 OR, 2 XR)  
Class 257 : ACTIVE SOLID-STATE DEVICES  
257/734 COMBINED WITH ELECTRICAL CONTACT OR LEAD  
257/773 .Of specified configuration  
257/774 ..via (interconnection hole) shape

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- 2 257/778 (0 OR, 2 XR)  
 Class 257 : ACTIVE SOLID-STATE DEVICES  
 257/734 COMBINED WITH ELECTRICAL CONTACT OR LEAD  
 257/778 .Flip chip
- 2 257/780 (0 OR, 2 XR)  
 Class 257 : ACTIVE SOLID-STATE DEVICES  
 257/734 COMBINED WITH ELECTRICAL CONTACT OR LEAD  
 257/780 .Ball or nail head type contact, lead, or bond
- 2 257/E23.008 (0 OR, 2 XR)  
 Class 257 : ACTIVE SOLID-STATE DEVICES  
 257/E23.001 PACKAGING, INTERCONNECTS, AND MARKINGS FOR  
 SEMICONDUCTOR OR OTHER SOLID-STATE DEVICES (EPO)  
 257/E23.003 .Mountings, e.g., nondetachable insulating  
 substrates (EPO)  
 257/E23.005 ..Characterized by material or its electrical  
 properties (EPO)  
 257/E23.008 ...Semiconductor insulating substrates (EPO)
- 2 257/E23.021 (0 OR, 2 XR)  
 Class 257 : ACTIVE SOLID-STATE DEVICES  
 257/E23.001 PACKAGING, INTERCONNECTS, AND MARKINGS FOR  
 SEMICONDUCTOR OR OTHER SOLID-STATE DEVICES (EPO)  
 257/E23.01 .Arrangements for conducting electric current  
 to or from solid-state body in operation, e.g., leads,  
 terminal arrangements (EPO)  
 257/E23.012 ..Consisting of lead-in layers inseparably  
 applied to semiconductor body (EPO)  
 257/E23.019 ...Consisting of layered constructions  
 comprising conductive layers and insulating layers,  
 e.g.,  
 257/E23.021 ....planar contacts (EPO)  
 257/E23.021 ....Bump or ball contacts (EPO)
- 2 257/E23.075 (0 OR, 2 XR)  
 Class 257 : ACTIVE SOLID-STATE DEVICES  
 257/E23.001 PACKAGING, INTERCONNECTS, AND MARKINGS FOR  
 SEMICONDUCTOR OR OTHER SOLID-STATE DEVICES (EPO)  
 257/E23.01 .Arrangements for conducting electric current  
 to or from solid-state body in operation, e.g.,  
 leads,  
 terminal arrangements (EPO)  
 257/E23.023 ..Consisting of soldered or bonded  
 constructions (EPO)  
 257/E23.06 ...Leads, i.e., metallizations or lead frames  
 on insulating substrates, e.g., chip carriers (EPO)  
 257/E23.072 ....Characterized by materials (EPO)  
 257/E23.075 .....Conductive materials containing organic  
 materials or pastes, e.g., for thick films (EPO)
- 2 257/E23.088 (0 OR, 2 XR)  
 Class 257 : ACTIVE SOLID-STATE DEVICES  
 257/E23.079 ..For integrated circuit devices, e.g., power  
 bus, number of leads (EPO)  
 257/E23.08 .Arrangements for cooling, heating, ventilating  
 or temperature compensation; temperature-sensing  
 arrangements (EPO)  
 257/E23.087 ..Fillings or auxiliary members in containers  
 or encapsulations selected or arranged to facilitate  
 heating or cooling (EPO)  
 257/E23.088 ...Cooling by change of state, e.g., use of

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heat pipes (EPO)

- 2 257/E23.092 (0 OR, 2 XR)  
Class 257 : ACTIVE SOLID-STATE DEVICES  
257/E23.079 ..For integrated circuit devices, e.g., power  
bus, number of leads (EPO)  
257/E23.08 .Arrangements for cooling, heating, ventilating  
or temperature compensation; temperature-sensing  
arrangements (EPO)  
257/E23.087 ..Fillings or auxiliary members in containers  
or encapsulations selected or arranged to facilitate  
heating or cooling (EPO)  
257/E23.09 ...Auxiliary members in containers  
characterized by their shape, e.g., pistons (EPO)  
257/E23.092 ....Auxiliary members in encapsulations (EPO)

- 2 257/E25.023 (0 OR, 2 XR)  
Class 257 : ACTIVE SOLID-STATE DEVICES  
257/E25.001 ASSEMBLIES CONSISTING OF PLURALITY OF  
INDIVIDUAL SEMICONDUCTOR OR OTHER SOLID-STATE DEVICES  
(EPO)

- 257/E25.002 .All devices being of same type, e.g.,  
assemblies of rectifier diodes (EPO)  
257/E25.022 ..Devices having separate containers (EPO)  
257/E25.023 ...Device consisting of plurality of  
semiconductor or other solid-state devices or components  
formed in or on common substrate, e.g., integrated

circuit  
device (EPO)

- 2 359/2 (0 OR, 2 XR)  
Class 359 : OPTICS: SYSTEMS  
359/1 HOLOGRAPHIC SYSTEM OR ELEMENT  
359/2 .Authentication

- 2 361/699 (2 OR, 0 XR)  
Class 361 : ELECTRICITY: ELECTRICAL SYSTEMS AND DEVICES  
361/600 HOUSING OR MOUNTING ASSEMBLIES WITH DIVERSE  
ELECTRICAL COMPONENTS  
361/679 .For electronic systems and devices  
361/688 ..With cooling means  
361/689 ...Fluid  
361/699 ....Liquid

- 2 361/761 (0 OR, 2 XR)  
Class 361 : ELECTRICITY: ELECTRICAL SYSTEMS AND DEVICES  
361/600 HOUSING OR MOUNTING ASSEMBLIES WITH DIVERSE  
ELECTRICAL COMPONENTS  
361/679 .For electronic systems and devices  
361/748 ..Printed circuit board  
361/760 ...Connection of components to board  
361/761 ....Component within printed circuit board

- 2 361/764 (0 OR, 2 XR)  
Class 361 : ELECTRICITY: ELECTRICAL SYSTEMS AND DEVICES  
361/600 HOUSING OR MOUNTING ASSEMBLIES WITH DIVERSE  
ELECTRICAL COMPONENTS  
361/679 .For electronic systems and devices

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361/748 ..Printed circuit board  
 361/760 ...Connection of components to board  
 361/761 ....Component within printed circuit board  
 361/764 .....Integrated circuit

2 361/820 (1 OR, 1 XR)  
 Class 361 : ELECTRICITY: ELECTRICAL SYSTEMS AND DEVICES

361/600 HOUSING OR MOUNTING ASSEMBLIES WITH DIVERSE  
 ELECTRICAL COMPONENTS  
 361/679 .For electronic systems and devices  
 361/820 ..For semiconductor device

2 430/1 (2 OR, 0 XR)  
 Class 430 : RADIATION IMAGERY CHEMISTRY: PROCESS,  
 COMPOSITION, OR PRODUCT THEREOF  
 430/1 HOLOGRAPHIC PROCESS, COMPOSITION, OR PRODUCT